



January 26, 2015

SOUTH CAROLINA TECHNICAL GUIDE

File Code: TCH 450

NOTICE 343

Subject. Release of an updated version for the South Carolina Technical Guide Notice.

Purpose. This notice transmits information regarding updates to the South Carolina electronic Field Office Technical Guide (eFOTG). In addition, notes are included to highlight key changes made to conservation practice standards.

Effective Date. This notice is effective when received.

Explanation: Conservation practices are periodically reviewed and revised in compliance with NRCS policy. Design tools are continually evaluated and revised in order to achieve designs in accordance with accepted design principles.

Filing Instructions: The updated standards and operation and maintenance templates have been loaded into Section I, III, and, IV of the Field Office Technical Guide. A copy of this notice can be found in Section I under the folder "FOTG Notices and Updates". All updated conservation practice standards have been archived in the FOTG archive system.

Important: Toolkit users must "Reload Domain Data" which is located under "file" on the main Toolkit user Customer Service Toolkit, on all computers. Reloading Domain data will insure the Toolkit user has updated practices and narratives from Conservation Practice Standards.

SECTION I- GENERAL RESOURCES

Located in the Technical References folder under Agronomy Technical References:

- Conservation Tillage Systems of the SE
- Managing Cover Crops Profitably, 3rd Edition
- SARE publication: A Whole Farm Approach to Managing Pests
- SARE publication: Cultural Practices for Root-Knot and Root-Lesion Nematode Suppression in Vegetable Crop Rotations
- SARE publication: Organic Sweetcorn Insect Management
- SARE publication: Transitioning to Organic Production

- UK Extension High Tunnel Tomato publication
- NC Season Extension publication- guide to crop production in High Tunnels
- Iowa State High Tunnel construction considerations
- OSU How to Get a Good Soil Sample

Located in the Technical References folder under Biology Technical Information:

- SC Native Plant List
- Big Bluestem Planting Guide
- Fish and Wildlife Leaflet Eastern Bluebird
- Fish and Wildlife Leaflet Bats
- Fish and Wildlife Leaflet Wood Duck
- Identification and Control of Weeds in Southern Pond
- Little Bluestem Planting Guide
- Longleaf Pine Vendor List
- SC Treatment Guidance for Aquatic Invasive Species
- Native Wetland Plants for Riparian Planting
- NRCS Technical Guide Hedgerow Planting
- Indiangrass Planting Guide
- NRCS Tree and Shrub for Wildlife Tech Guide
- Nursery List for Bareroot, Plugs or Containerized Plant Material
- Switchgrass Planting Guide
- Native Plants for Streambank and Riparian Restoration
- Native Plants for Wetland Restoration
- Native Shrubs Plant List
- Native Species for Hedgerow Planting
- Native Woody Plant List

***Located in the Technical References folder under Biology Technical Information:
Pollinator Technical Information:***

- Nests for Native Bees Fact Sheet Xerces Society
- Pollinator Plant List, Sorted
- Tunnel Nest Management, Xerces Society
- Xerces Pollinator Habitat Assessment
- NRCS Longleaf Herbaceous Understory Guide
- SC Pollinator Conservation Resources Web Links
- Milkweed Species Availability
- Preferred Nectar Sources for Monarch Butterflies

Located in the Technical References folder under Forestry Technical References:

- SC Forest Management Plan Template, February 2011
- Management Guide for Invasive Plants in the Southern Forest
- NRCS Longleaf Understory Guide
- Introduction to Prescribed Fire in the Southern Ecosystem

Located in the Technical References folder under Grazing Technical References:

- SARE publication: Profitable Poultry: Raising Birds on Pasture
- SARE publication: Profitable Pork: Strategies for Hog Producers- includes information on raising pasture pork
- SARE publication: Sustainable Control of Internal Parasites in Small Ruminant Production

Located in the Technical References folder under Technotes:

- Agronomy Technote 3: Precision Nutrient Management Planning – Provides additional guidance regarding advanced nutrient management techniques such as grid/zone soil mapping and incorporating yield maps for improved nutrient management
- Agronomy Technote 13: Roller Crimper Cover Crop Termination Guidelines – provides details on terminating cover crops using mechanical methods
- Agronomy Technote 18: Sodbased Rotation – provides guidance on implementing a crop rotation that includes two years of sod in crop fields for soil health improvement.
- Agronomy Technote 5: Pest Management in Conservation Planning – Assists planners with planning and implementing the 595 Integrated Pest Management practice.
- Agronomy Technote 6: Adaptive Nutrient Management – provides guidance to planners for implementing a component of 590 Nutrient Management: adaptive nutrient management. Adaptive management involves establishing replicated plots while varying amounts of nutrient inputs in each plot. The plots are then harvested and yields are recorded. A statistical analysis is done to verify if the nutrient adjustment reflected a positive or negative response. This information is then used by the producer to determine the optimum fertility rate for future crops.
- Agronomy Technote 9: Preventing or Mitigating Potential Negative Impacts of Pesticides on Pollinators Using Integrated Pest Management and other Conservation Practices - This technical note is designed to aid conservation planners in preventing or mitigating pest management risks to pollinators and pollinator habitat.
- SC Tech Note 12 Microtopography, January 2015

Located in the Cost Data folder under Practice Cost List:

- 2015 EQIP Payment Schedule

Located in the Invasive Species folder:

- South Carolina Major Invasive Species of Concern Treatments
- Landowner Guide to Wild Pig Management
- Managing Feral Pigs, a Technical Guide
- Managing Wild Pigs

Located in the Conservation Programs Folder under CRP:

- 666 Forest Stand Improvement CRP Forest Opening Jobsheet
- 2014 CRP Cost List
- Basal Area DBH Trees per Acre Guide
- CRP CP4D Field Checklist Beneficial Vegetation
- Herbicide Application and Longleaf Planting
- Partridge Pea and Switchgrass Cultivar and Ecotype Guidance

SECTION III- RESOURCE MGT. SYSTEMS AND CRITERIA

Located in the CAP Technical Criteria Folder under FY 2015 CAPS

- Comprehensive Nutrient Management (102)
- Nutrient Management Plan (104)
- Forest Management Plan (106)
- Feed Management Plan (108)
- Grazing Management Plan (110)
- Prescribed Burning Plan (112)
- Integrated Pest Management Plan (114)
- Irrigation Water Management Plan (118)
- Agricultural Energy Management Plan (128)
- Drainage Water Management Plan (130)
- Organic Transition Plan (138)
- Fish and Wildlife Habitat Plan (142)
- Pollinator Habitat Enhancement Plan (146)
- IPM Herbicide Resistance Weed Conservation Plan (154)

SECTION IV-PRACTICE STANDARDS AND SPECIFICATIONS

Access Road (Code 560) – The agency revised the definition. The chart for the location of cross slope drainage features was modified to include a variety of soils rather than a single soil. The agency clarified references to supporting practices. The revised national standard was adopted.

Agrichemical Handling Facility (Code 309) – The agency added new criterial under which lowering the water table would be allowable, expanded sizing criteria of the agrichemical handling pad, clarified language under the storage capacity criteria, added new criteria for an equipment wash bay, and updated and clarification to the criteria for concrete exposed to agrichemicals. The revised national standard was adopted.

Animal Mortality Facility (Code 316) – The standard was updated to match the current national standard. No State changes were made.

Anaerobic Digester (Code 366) – The title of the standard was changed from “Anaerobic Digester – Controlled Temperature “to Anaerobic Digester. The standard was updated to match the current national standard. No State changes were made.

Aquatic Organism Passage (Code 396) -- Changed date on the Standard, SOW, and Job Sheet to January 2015.

Brush Management (Code 314) – Changed date on the Standard, SOW and Job Sheet to January 2015.

Channel Bed Stabilization (Code 584) – The standard was updated to match the current national standard. No State changes were made.

Composting Facility (Code 317) – The standard was updated to match the current national standard. No State changes were made.

Herbaceous Weed Control (Code 315) – Changed date on the Standard, SOW and Job Sheet to January 2015.

Conservation Cover (Code 327) – Managing pests was not appropriate as the purpose of this standard, and was deleted. Added "beneficial organism habitat" to the pollinator purpose of the practice. Added one new reference: SC Agronomy Technical Note 9, Preventing or Mitigating Potential Negative Impacts of Pesticides on Pollinators Using IPM and Other Conservation Practices. New job sheet added for Monarch Habitat. Changed date on the Standard and sow to January 2015.

Conservation Crop Rotation (Code 328) - Changed definition slightly from "Growing crops in a planned sequence on the same field" to "Aplanned sequence of crops grown on the same ground over a period of time (i.e., the rotation)." A SOW was also posted for this practice.

Contour Buffer Strips (Code 332) - Added an additional practice purpose to reduce transport of nutrients downslope, and combined the additional criteria for this purpose with the additional criteria to reduce transport of sediment and other waterborne contaminants downslope. Made minor wording modifications to improve understanding and reduce redundancy in the standard. A SOW was also posted for this practice.

Cover Crop (Code 340) - Deleted two purposes, (1) promote biological nitrogen fixation and reduce energy use, and (2) increase biodiversity, as the two purposes are captured in the criteria in the general criteria and the criteria for the other purposes. Edited the criteria to improve clarity and understanding of the standard. Added additional criteria to address the need to terminate cover crops within the NRCS Cover Crop Termination Guidelines. Provided additional criteria for haying and grazing cover crops. A SOW was also posted for this practice.

NRCS Cropland Cover Crop Termination Guidelines-September 2014, Version 3-
A flexible multi – agency policy across the USDA Farm Service Agency (FSA), RMA, and NRCS. The revised guidance allows flexibility for producers and crop consultants to make field-by-field management decisions in order to achieve the economic and conservation benefits cover crops offer. With this consistent, science-based cover crop guidance, farmers will have a greater opportunity to utilize cover crops. The third revision provides clearer guidance to areas

that have summer - fallow crop rotations. The title also changed from “NRCS Cover Crop Termination Guidelines” to “NRCS Cropland Cover Crop Termination Guidelines”.

Critical Area Planting (Code 342) - The standard has been updated to reference the new planting appendix. A new appendix has been added that includes recommended planting rates and species for SC. A SOW was also posted for this practice.

Cross Wind Trap Strips (Code 589c) - Removed the purpose to induce windborne sediment and deposition as this is covered under the purpose to reduce soil erosion and induce windblown sediment deposition. Deleted the purpose to provide food and cover for pollinators and wildlife. In the general criteria for the practice, the language changed from using university extension guides to NRCS approved technical references for seeding and establishment. A SOW was posted for this practice.

Diversion (Code 362) – The standard was updated to match the current national standard. No State changes were made.

Drainage Water Management (Code 554) – The standard was updated to match the current national standard. No State changes were made.

Early Successional Habitat Development and Management (Code 647) - Changed date on the Standard, SOW and Job Sheet to January 2015.

Fence (Code 382)

- Updated Job sheet and specifications to include: metal pipes used as posts must be capped to prevent bird mortality.
- Timeless fence criteria added to Fence Material specifications.
- Added SOW.
- SC382_Fence_Woven Wire Specifications 2012
- SC382_Fence_Barbed_Wire_Specifications_2012
- SC382_Fence_Electric_Jobsheet_2013
- SC382_Fence_Electric_Specifications_2012
- SC382_Fence_High_Tensile_NonElectric_Specifications_2012
- SC382_Fence_Non_Electric_Jobsheet_2013
- SC382_Fence_SOW_2015
- SC382_Fence_Standard_2013
- SC_382_Fence_Material_Specifications_2012-Tables_1-9

Field Border (Code 386) - Updated the references to include NRCS TN 9, Preventing or Mitigating Potential Negative Impacts of Pesticides on Pollinators Using Integrated Pest Management and Other Conservation Practices. Changed date on the Standard. SOW and Job Sheet to January 2015.

Firebreak (Code 394) – Added SOW.

Fish Pond Management (Code 399) - Changed date on the Standard, SOW and Job Sheet to January 2015.

Forage Harvest Management (Code 511) - Added SOW.

Forage and Biomass Planting (Code 512) - Added SOW.

Forest Stand Improvement (Code 666) - Added SOW.

Grade Stabilization Structure (Code 410) – The agency refined the definition, modified criteria, and updated terminology related to hazard classification. The standard was updated to match the current national standard. No State changes were made.

Groundwater Testing (Code 355) – The agency changed the title from “Water Well Testing” to “Groundwater Testing”, to reflect that this practice can be used to test groundwater from both wells and springs. The agency also modified conditions where practice applies and removed items from criteria operation and maintenance. The standard was updated to match the current national standard. No State changes were made.

Grassed Waterway (Code 412) – the agency refined the definition, modified criteria, and updated terminology related to hazard classification. The standard was updated to match the current national standard. No State changes were made.

Hedgerow (Code 422) - removed incorrect references to the location of technical information and changed the date to January 2015. Changed date on the Standard. SOW and Job Sheet to January 2015.

Heavy Use Area Protection (Code 561) – The agency changed the units of the practice from acres to square feet to better reflect usage. The definition of the practice changed slightly. Criteria for the use of concrete and mulches were modified. Criteria for the use of vegetation and other material as a surface treatment were added. Considerations for animal health and air quality were added. The agency clarified references to supporting practices. The standard was updated to match the current national standard. No State changes were made.

Integrated Pest Management (Code 595) - A new jobsheet has been posted that assists planners with the development and implementation of the practice. The calculator also creates jobsheets that can be placed in the file. A new SOW has also been posted for the practice. Agronomy Technote 5 which assists planners implementing this practice, has also been placed in Section I under “Technotes”.

Pest Management (Code 595) - This folder was archived because the practice name is no longer “Pest Management”. 595 Integrated Pest Management has replaced this standard and has been posted.

Irrigation Reservoir (Code 436) – The standard was updated to match the current national standard. No State changes were made.

Irrigation Water Management (Code 449) – The purpose of improving air quality was removed. IWM would not be applied to treat air quality in and of it. The purpose of decreasing nonpoint source pollution of surface and groundwater resources was rewritten as “Decrease

degradation of surface and groundwater resources.” The criteria section has been edited for clarity, and the criteria for plant stress monitoring were updated to include current technology. Several new references were added. No State changes were made.

Land Smoothing (Code 466) – The standard was updated to match the current national standard. No State changes were made.

Livestock Shelter Structure (Code 576) - Added Jobsheet.

Monitoring Well (Code 353) – The agency changed the definition, deleted a purpose, modified conditions where practice applies, changed some criteria, and added considerations.

Pond Sealing or Lining – Flexible Membrane (Code 521a) – The standard was updated to match the current national standard. No State changes were made.

Pond Sealing or Lining – Soil Dispersant Treatment (Code 521b) – The standard was updated to match the current national standard. No State changes were made.

Pond Sealing or Lining – Bentonite (Code 521c) – The standard was updated to match the current national standard. No State changes were made.

Pond Sealing or Lining – Compacted Clay (Code 521d) – The standard was updated to match the current national standard. No State changes were made.

Precision Land Forming (Code 462) – The agency updated the operation and maintenance section and references. No State changes were made.

Prescribed Burning (Code 338) – Removed ill-advised references to conservation program requirements from the Standard. Updated the date to January 2015. Updated the references to include the South Carolina Smoke Management Guidelines.

Changed date on the Standard, SOW, and Job Sheet to January 2015.

Prescribed Grazing (Code 528) – The standard was updated to match the current national standard. No State changes were made. Added SOW.

Restoration and Management of Rare and Declining Habitat (Code 643) — Changed date on the Standard, SOW, and Job Sheet to January 2015.

Riparian Herbaceous Buffer (Code 390) - Changed date on the Standard, SOW and Job Sheet to January 2015.

Riparian Forest Buffer (Code 390) – Updated and clarified the criteria for including zones 1, 2, and 3, if necessary when planning a riparian forest buffer. Changed date on the Standard, SOW, and Job Sheet to January 2015.

Roof Runoff Structure (Code 558) – The agency added inventory and assessment information, clarified the language and organization of the standard, added conditions and criteria for capturing roof runoff for other uses, and added considerations.

Shallow Water Development and Management (Code 646) - Changed date on the Standard, SOW, and Job Sheet to January 2015.

Silvopasture (Code 381) – Added SOW.

Stream Crossing (Code 578) – The standard was updated to match the current national standard. No State changes were made.

Structures for Wildlife (Code 649) – Added this new conservation practice to the SC eFOTG. The practice is intended to address a missing or deficient wildlife habitat component of nesting or roosting habitat. This practice applies to all lands where planting or managing vegetation fails to meet the short-term needs of the target species. Additional job sheets have been added to the eFOTG as well. Changed date on the Standard, SOW and Job Sheet to January 2015.

Stream Habitat Improvement and Management (Code 395) - Changed date on the Standard, SOW and Job Sheet to January 2015

Surface Roughening (Code 609) – Revised the condition where the practice applies to stress the practice is “emergency tillage” and not the primary method of erosion control. The general criterion for the random roughness based in the “soil erodibility factor” from the former wind erosion equation was removed. The current technology is now based on the Wind Erosion Prediction System technology.

Terrace (Code 600) – The agency clearly defined pressure flow and gravity flow, added tractive stress references, updated the operation and maintenance section, and added references.

Trails and Walkways (Code 575) – The agency incorporated Trails and Walkways (Code 568) into Animal Trails and Walkways (Code 575) under the name Trails and Walkways (Code 575). These standards were combined into one because many of the criteria are very similar. The practice name, definition, purpose, and conditions where practice applies were modified accordingly. The agency clarified references to supporting practices.

Waste Facility Closure (Code 360) – The standard was updated to match the current national standard. No State changes were made.

Waste Transfer (Code 634) – The agency removed “hauling waste material with equipment or vehicles” from the conditions where this practice is applied and expanded the design criteria information specific from waste transfer pipelines.

Waste Treatment Lagoon (Code 359) – The standard was updated to match the current national standard. No State changes were made.

Water Well (Code 642) – Modified the criteria to reflect adherence to specific SC well regulations.

Watering Facility (Code 614) – The agency revised the definition of the practice and a purpose was added. The criteria for watering ramps were added. There is more emphasis on water storage tanks. The lifespan of this practice changed from 20 years to 10 years. The agency clarified references to supporting practices.

Well Decommissioning (Code 351) – The agency changed the name of the practice from Water Well Decommissioning to Well Decommissioning to reflect that this standard is used to decommission both water wells and monitoring wells. The agency revised the purposes and criteria sections. Disinfection was moved from criteria to considerations. The standard was updated to match the current national standard. No State changes were made.

Wetland Wildlife Habitat Management (Code 644) -- Changed date on the Standard, SOW and Job Sheet to January 2015.

Upland Wildlife Habitat Management (Code 645) -- Changed date on the Standard, SOW and Job Sheet to January 2015.

Wetland Restoration (Code 657) - Changed date on the Standard, SOW and Job Sheet to January 2015.

Wetland Enhancement (Code 659) - Changed date on the Standard, SOW and Job Sheet to January 2015.

Tools:

SC Seed Calculator Planting Jobsheet January 2015

SVAP 2, Stream Visual Assessment Protocol

WHIG Oldfield, Field data sheet

WHIG Hardwood, Field data sheet

WHIG Pasture and Hayland, Field data sheet

WHIG, Pine Forest, Field data sheet

WHIG Riparian, Field data sheet

WHIG Wetland, Field data sheet

CONSERVATION PRACTICES TO BE REMOVED OR SUSPENDED:

Irrigation Regulation Reservoir (Code 552A) – This practice was previously removed from the National Conservation practices. Pertinent information was incorporated into Irrigation Reservoir (Code 436)

Livestock Water System Tool:

The spreadsheet for designing livestock water systems with a well as a water source was revised. The new spreadsheet has been placed in the Field Office Technical Guide (FOTG) in “Section IV|Tools|Engineering Tools|Livestock Water System|Water Well” directory. Version 3.3 will replace previous versions. New systems should be designed using the updated tool.

It is recommended to maintain a copy of the Version 3.2 of the Livestock Water System design tool while systems are being implemented that were designed using that tool.

South Carolina Practice Standard Riparian Forest Buffer (Code 391A) Addendum for CRP has been **suspended** for use in South Carolina. For all **new** CP 22 Riparian Buffer Contracts, the conservation practice **MUST** follow the NRCS 391 Riparian Forest Buffer Conservation Practice Standard. This means that the Riparian Forest Buffer **MUST** include 2 zones consisting of trees (zone 1) and shrubs (zone 2) and in certain situations a 3rd herbaceous zone in order to meet the conservation practice standard. CRP practices must be implemented according to NRCS Conservation Practice Standards. Participants who are not willing to implement the CP 22 Riparian Forest Buffer practice according to the NRCS Standard should not be signed up for this practice.

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